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Job Adventures. For Geeks.

FAMILY TREE

The Shan Family Tree

Male   Female

PROBLEM CONTEXT

Our story is set in the planet of Lengaburu......in the distant, distant galaxy of Tara B. And our protagonists are King Shan, Queen Anga & their family.

King Shan is the emperor of Lengaburu and has been ruling the planet for the last 350 years (they have long lives in Lengaburu, you see!). Let's write some code to get to know the family

PROBLEM 1: MEET THE FAMILY

Model out the Shan family tree so that when given a 'name' and a 'relationship' as an input, the output are the people that correspond to the relationship.

Simple, right? But remember.. our evaluation is based not only on getting the right output, but on how you've written your code

⇄ Sample Input & Output

Input: Person = Ish; Relation = Brothers
Expected Output: Chit, Vich

PROBLEM 2: A NEW BORN

There are some expectant mothers in the Shan family. Your code should be able to add a child into a particular family in the tree.

After that, when given a 'name' and a 'relationship' as an input, the output should be the person/people that correspond to the relationship.

Sample Input & Output

Input: Mother = Lavanya; Daughter = Vanya Input: Person = Janki; Relation = Grandchildren
Expected Output: Vanya

PROBLEM 3: THE GIRL CHILD

King Shan loves his family but has a soft corner for his granddaughters and great-granddaughters. At every family get together he bestows gifts to the mother with the most girl children. Write code to determine which mother has the most girl children.

In addition, you should be able to add a child into a particular family in the tree.

PROBLEM 4: WHO'S YOUR DADDY?

Since the empire has been around for four generations, there are many folks in Lengaburu who do not know the relationship between the royalty. So, given two names as input, the output should be the relationship between the two.

⟲ Sample Input & Output

Input: Person = Kriya; Relative = Saayan
Expected Output: Paternal Uncle

RELATIONSHIPS TO HANDLE

There are many relations that could exist but at a minimum, your code needs to handle these relationships

Relationships	Paternal uncle	Maternal uncle	Paternal aunt	Maternal aunt	Sister-in law	Brother-in-law	Cousins	Father	Mother	Children	Son	Daughter	Brothers	Sisters	grand daughter
Definition	Father's brothers, Father's brother-in-laws	Mother's brother, Mother's brother-in-laws	Father's sister, Father's sister-in-laws	Mother's sister, Mother's sister-in-laws	Spouse's sisters, Wives of siblings, Spouse's sister-in-laws	Spouse's brothers, Husbands of siblings, Spouse's brother-in-laws	Children of parent's siblings								

SUBMITTING CODE

1. Please compress the file before upload. We accept .zip, .rar, .gz and .gzip

2. Name of the file should be the problem number you are solving. For e.g. if you have solved problem 3, please name your file 'problem 3.zip'. If you have solved problem 1 and 2, please name it 'problem12.zip' etc..

3. Upload the file in a way that makes it easy for us to get it running. This will factor into your evaluation.

4. Usage of non-essential 3rd party libraries will affect your evaluation.
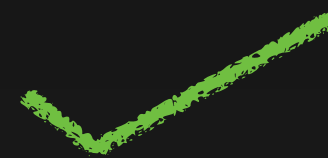
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